

**TOWN OF ARLINGTON**  
**TOWN MEETING ELECTRONIC VOTING STUDY COMMITTEE**

*February 4, 2014*

**Call to Order**

The regular meeting of the Town Meeting Electronic Voting Study Committee was called to order by Committee Chair Eric Helmuth in the Selectmen's Hearing Room in Town Hall on Tuesday, February 4, 2014, at 7:42 PM.

*Quorum*

A quorum was present: Roland Chaput, John Leone, Adam Auster, and Eric Helmuth.

**Approval of Minutes**

MOTION:

*Approval of  
Minutes*

Mr. Leone moved to approve the minutes of the January 28, 2014, meeting, with the following corrections:

- The reference to “open” town meetings in Mr. Fite's remarks on page 1 should be changed to “representative” town meetings
- The second mention of an audio monitor under “Town Logistical Responsibilities” on page 3 is a duplicate and should be removed.

The motion passed unanimously.

**Reports**

CHAIR:

*Warrant Articles*

Mr. Helmuth said that on Monday February 10 the Selectmen will hear the Committee's warrant articles for (1) a sense-of-Town-Meeting resolution on electronic voting and (2) the bylaw amendment to correct the definition of a close vote that triggers immediate review.

TOWN

MODERATOR:

*Volunteers*

Mr. Leone said that he has been directed to the guidance department at Arlington High School to recruit students willing to assist with electronic-voting set-up to satisfy the school's community-service requirement.

## **Business**

MOTION:

*Resolution on*

*Electronic*

*Voting*

Mr. Helmuth moved that the Committee recommend the following resolution to Town Meeting:

*Resolved:* The Town of Arlington Town Meeting hereby adopts the use of an electronic tally and display system for voting at future Town Meetings.

The motion passed

DISCUSSION:

*Close-Votes*

*Amendment*

Mr. Auster referred to the memo “Bylaw provision on close votes and fixes,” which had been sent to Committee members before the meeting. A copy of this memo is attached to these minutes.

He said the purpose of the original provision on close votes was to deter proxy voting and detect fraud and error, and to increase confidence in the voting process.

*Current Rule*

*Defective*

However, he said, there is an error in the definition of close vote, which measures close votes in terms of the difference between yeas and nays.

He said that definition would fail in supermajority votes such as the two-thirds majority that is required for zoning bylaw.

Instead, he said, the definition should define a close vote in terms of the margin of success of the prevailing side.

*Two Possible*

*Solutions*

Mr. Auster said that he and Mr. Leone had narrowed down the possible remedies to two approaches: to add a new rule for supermajorities, keeping the current rule for simple majorities, or to have a single new rule for all votes.

The Committee weighed the virtues and disadvantages of these approaches. Members said that current rule is functional for regular majority votes and is more intuitive, but that having a single rule for all votes would make a bylaw that is shorter and possibly less confusing.

MOTION:  
*Bylaw Amendment*

Mr. Auster moved to recommend the following bylaw amendment:

Town Meeting votes to amend the first paragraph of Title I, Article I, Section 10.c of the Bylaws by deleting the final sentence and replacing it with the following:

The individual votes shall always be displayed if the margin of success of the prevailing side, calculated by subtracting the smallest number needed to prevail from the actual number of prevailing votes, is less than three.

so that the entire paragraph shall read as follows:

All votes, unless otherwise provided by law, shall be taken in the first instance by a “yes” and “no” voice vote or by an electronic tally at the option of the Moderator. If the Moderator is in doubt as to the voice vote, or if five voters immediately question a voice vote, the Moderator shall call for a standing vote or an electronic tally, at the option of the Moderator. The individual votes shall always be displayed if the margin of success of the prevailing side, calculated by subtracting the smallest number needed to prevail from the actual number of prevailing votes, is less than three.

The motion passed.

MOTION:  
*Adjournment*

Mr. Chaput moved that the meeting adjourn.

The motion passed.

**Adjournment**

The meeting adjourned at 8:37 PM.

Adam Auster, *Secretary*

**Corrections**

The phrase “for voting for future Town Meetings” in the resolution on page 1 of draft minutes is corrected to read “for voting at future Town Meetings.”

**APPROVED**  
as corrected  
February 4, 2014

Adam Auster, *Secretary*

Eric Helmuth, *Chair*

Documents attached to these minutes:

1. “Bylaw provision on close votes and fixes”

**Re: Bylaw provision on close votes and fixes**

**To: Electronic Voting Study Committee**

**From: Adam Auster**

**Date: February 4, 2014**

The first paragraph of our new bylaw reads as follows:

All votes, unless otherwise provided by law, shall be taken in the first instance by a “yes” and “no” voice vote or by an electronic tally at the option of the Moderator. If the Moderator is in doubt as to the voice vote, or if five voters immediately question a voice vote, the Moderator shall call for a standing vote or an electronic tally, at the option of the Moderator. *In an instance where the difference between the yes and no votes according to an electronic tally is less than 6 votes, then the individual votes shall be displayed.* Art. I §10.C ¶1

The sentence at issue is emphasized.

The purpose of this rule is to detect error and fraud, especially illegal proxy voting, and to increase confidence in the integrity of the vote.

Committee members all seem to understand how this fails for supermajority votes; we agree that the bylaws should be changed to fix it. The current rule for close vote is based on the “difference between the yes and no votes,” but it should have been based on the margin of success of the prevailing side.

These two rules amount to the same thing when the vote is decided by a simple majority, but not when by a supermajority such as two thirds.

Mr. Leone and I have identified two different ways to fix the bylaw.

The first would leave the current rule intact but restrict it to simple-majority votes, and add a second rule for all other votes.

The second would substitute a single new rule for all votes.

### **Current Rule Intact for Simple Majority**

To amend the first paragraph of Title I, Article I, Section 10.c of the Bylaws by (1) inserting the words “For votes requiring a simple majority” at the start of the last sentence and (2) by adding the following sentence at the end of the paragraph:

For all other votes, the individual votes shall always be displayed if the margin of success of the prevailing side, calculated by subtracting the smallest number needed to prevail from the actual number of prevailing votes, is less than three.

so that the entire paragraph shall read as follows:

All votes, unless otherwise provided by law, shall be taken in the first instance by a “yes” and “no” voice vote or by an electronic tally at the option of the Moderator. If the Moderator is in doubt as to the voice vote, or if five voters immediately question a voice vote, the Moderator shall call for a standing vote or an electronic tally, at the option of the Moderator. For votes requiring a simple majority, in an instance where the difference between the yes and no votes according to an electronic tally is less than 6 votes, then the individual votes shall be displayed. For all other votes, the individual votes shall always be displayed if the margin of success of the prevailing side, calculated by subtracting the smallest number needed to prevail from the actual number of prevailing votes, is less than three.

### **New Rule for All Cases**

To amend the first paragraph of Title I, Article I, Section 10.c of the Bylaws by deleting the final sentence and replacing it with the following:

The individual votes shall always be displayed if the margin of success of the prevailing side, calculated by subtracting the smallest number needed to prevail from the actual number of prevailing votes, is less than three.

so that the entire paragraph shall read as follows:

All votes, unless otherwise provided by law, shall be taken in the first instance by a “yes” and “no” voice vote or by an electronic tally at the option of the Moderator. If the Moderator is in doubt as to the voice vote, or if five voters immediately question a voice vote, the Moderator shall call for a standing vote or an electronic tally, at the option of the Moderator. The individual votes shall always be displayed if the margin of success of the prevailing side, calculated by subtracting the smallest number needed to prevail from the actual number of prevailing votes, is less than three.

### **Results of New Rule**

The heart of the new requirement is the part about the “margin of success” being “less than three.” That’s a lot less intuitive than the current rule. Here is how it plays out in practice.

### Hypothetical 100 votes cast

Yea	Nay	Difference from smallest needed
54	46	3
53	47	2
52	48	1
<b>51</b>	49	0
50	<b>50</b>	0
49	51	1
48	52	2
47	53	3

### Hypothetical 101 votes cast

Yea	Nay	Difference from smallest needed
54	47	7
53	48	2
52	49	1
<b>51</b>	50	0
50	<b>51</b>	0
49	52	1
48	53	2
47	54	3

(The “smallest number needed to prevail” is emphasized.)

The rule flags six possible close outcomes clustered around the “smallest number needed to prevail.” It does so whether the total number of votes cast is odd or even, unlike the current rule.

The same holds true for a two-thirds vote:

### Two-Thirds Vote Hypothetical 99 votes cast

Yea	Nay	Difference from smallest needed
69	30	3
68	31	2
67	32	1
<b>66</b>	33	0
65	<b>34</b>	0
64	35	1
63	36	2
62	37	3

### Two-Thirds Vote Hypothetical 100 votes cast

Yea	Nay	Difference from smallest needed
70	30	3
69	31	2
68	32	1
<b>67</b>	33	0
66	<b>34</b>	0
65	35	1
64	36	2
63	37	3

The rule should always flag exactly six possible outcomes for any vote of sufficient size because the rule is defined in terms of a simple mathematical condition (“less than three”) in relation to a specific number.